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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,561	04/25/2001	Yann Cheri	35451/127 (3626.Palm)	7494

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EXAMINER
CASCHERA, ANTONIO A

ART UNIT	PAPER NUMBER
2697	7

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/842,561	CHERI ET AL.	
	Examiner	Art Unit	
	Antonio A Caschera	2697	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dutta (US 2002/0163524) in view of Helms (U.S. Patent 5,952,992).

In reference to claim 1, Dutta discloses a PDA comprising a housing (see large rectangle of Figure 1) and a display, having a front surface, supported by the housing (#101 of Figure 1). Dutta also discloses hardware components located within the PDA, and thus supported by the housing, utilized to communicate with the display (see page 2, paragraph 24 and Figure 2). Dutta discloses the hardware components configured to adjust both backlight and contrast display values (see Figure 8). Although Dutta discloses a light sensor configured to provide input to the hardware components of the PDA (see #107 of Figure 1) Dutta does not explicitly disclose the use of at least two light sensors however, Helms does. Helms discloses the use of two photodetectors to detect ambient light directed toward the display (see column 4, lines 41-51 and #14', 410 of Figure 4). Helms also discloses adjusting the brightness of an LCD with the use of the two photodetectors (see columns 4-5, lines 52-2). Note the second photodetector of Helms, located on the backside of the display (see #410 of Figure 4), detects ambient light behind the display however, such light is also interpreted as surrounding the display surface

therefore detecting ambient light conditions near the surface of the display. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the automatic adjusting PDA display system of Dutta with the multiple photodetector system of Helms in order to provide the user with a best lit display utilizing multiple light sensors to sense light directed towards the display from multiple angles (see column 4, lines 52-62 of Helms). Further, although Dutta discloses a photodetector located on the perimeter of an LCD configured to provide input to the hardware components of the PDA (see #107 of Figure 1) Dutta does not explicitly disclose the use of at least two light sensors, however *In re Harza,* 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) does. *In re Harza* suggests duplicating part for a multiple effect which the office interprets the light sensor as the duplication of part which maybe implemented to provide multiple light measurements at several positions around the display of Dutta.

In reference to claim 2, Dutta and Helms disclose all of the claim limitations as applied to claim 1 above in addition, Helms discloses the two photodetectors on opposite sides of an LCD display (see #14' and 410 of Figure 4).

In reference to claim 3, Dutta and Helms disclose all of the claim limitations as applied to claim 1 above. Although Helms discloses a photodetector located on the perimeter of an LCD (see #14 of Figure 1) neither Dutta nor Helms explicitly disclose the use of four light sensors located in the corners of the display, however *In re Harza,* 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) does. *In re Harza* suggests duplicating part for a multiple effect which the office interprets the light sensor as the duplication of part providing multiple light measurements. It would have been obvious to one of ordinary skill in the art at the time the invention was made

to locate the four light sensors in the 4 corners of the display in order to detect and capture the widest best light measurement possible as directed towards the display. Further, it is known to use multiple light detectors to get a better light reading such as in light meters in cameras, for example.

In reference to claim 4, Dutta and Helms disclose all of the claim limitations as applied to claim 3 above in addition, Helms discloses the photodetectors configured to an A/D converter within the brightness control circuitry (see #14, 204c, 212, and 204 of Figure 2) therefore the office interprets the photodetectors of Helms to be of photoelectric type.

In reference to claim 5, Dutta and Helms disclose all of the claim limitations as applied to claim 4 above in addition, Dutta discloses hardware components configured to adjust backlight and contrast values of a display based upon the light sensor (see page 2, paragraph 30, lines 3-13 and Figure 8). Dutta does not explicitly disclose averaging two light sensors to generate a control signal however Helms does. Helms discloses computing a weighted average of signals generated by photodetectors #14 and 410 of Figure 4 to calculate a control signal indexed from a lookup table (see columns 4-5, lines 66-2). Helms also discloses adjusting the brightness of an LCD with the use of the two photodetectors (see columns 4-5, lines 52-2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the adjusting of backlight and contrast values of Dutta based upon the average of the signals detected from the multiple photodetectors of Helms in order to adjust the display screen providing a best lit display following the contribution of detected light directed to multiple areas of the display screen.

In reference to claims 6 and 11, Dutta and Helms disclose all of the claim limitations as applied to claims 5 and 8 in addition, Helms discloses computing a weighted average of signals generated by photodetectors #14 and 410 of Figure 4 to calculate a control signal indexed from a lookup table (see columns 4-5, lines 66-2). The office interprets the process of indexing the lookup table of Helms in order to compute a control signal to substantially be an algorithm.

In reference to claim 7, Dutta and Helms disclose all of the claim limitations as applied to claim 1 above in addition, Dutta discloses the system for automatic backlight and contrast control utilizing a PDA LCD screen (see page 1, paragraph 2).

In reference to claim 8, claim 8 is similar in scope to claim 1 and therefore is rejected under similar rationale. Note, Dutta discloses a photodetector located on the perimeter of an LCD configured to provide input to the hardware components of the PDA (see #107 of Figure 1). Dutta does not explicitly disclose the use of at least two light sensors, however in view of *In re Harza,* 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960), the light sensors maybe implemented to provide multiple light measurements at several positions around the display of Dutta. Further, as Helms discloses two photodetectors located on the back and front sides of the display (see #14' and 410 of Figure 4) and Dutta discloses a photodetector located on the perimeter of a display surface side (see #107 of Figure 1), the office sees the positioning of two photodetectors on the same side of a display surface as a matter of design choice based on designer preference and the application at hand. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the multiple photodetector configuration of Helms because detecting ambient light shining towards the user's eyes from behind the display screen can be of use when adjusting display contrast and brightness

as such directional light can also effect viewing conditions and display performance. Therefore, it would have been obvious to one of ordinary skill in this art to modify Helms to obtain the invention as specified in claim 8.

In reference to claim 9, Dutta and Helms disclose all of the claim limitations as applied to claim 8 above in addition, Helms discloses computing a weighted average of signals generated by photodetectors #14 and 410 of Figure 4 to calculate a control signal indexed from a lookup table (see columns 4-5, lines 66-2).

In reference to claim 10, Dutta and Helms disclose all of the claim limitations as applied to claim 8 above in addition, Helms discloses computing a weighted average of signals generated by photodetectors #14 and 410 of Figure 4 to calculate a control signal indexed from a lookup table (see columns 4-5, lines 66-2).

In reference to claims 12 and 17, Dutta and Helms disclose all of the claim limitations as applied to claims 8 and 13 in addition, Dutta discloses computing contrast and backlight signals based upon the measure of light detected by a light sensor (see #802-804 of Figure 8). Note the office interprets the backlight signal of Dutta which controls the on/off state of the backlight of the LCD to be substantially similar to the brightness control signal claimed by applicant.

In reference to claim 13, claim 13 is similar in scope to claims 1 and 8 and therefore is rejected under similar rationale. Note although Helms discloses a photodetector located on the perimeter of an LCD (see #14 of Figure 1) neither Dutta nor Helms explicitly disclose the use of four light sensors located in the corners of the display, however *In re Harza,* 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) does. *In re Harza* suggests duplicating part for a multiple effect which the office interprets the light sensor as the duplication of part providing multiple

light measurements. It would have been obvious to one of ordinary skill in the art at the time the invention was made to locate the four light sensors in the 4 corners of the display in order to detect and capture the widest best light measurement possible as directed towards the display. Further, it is known to use multiple light detectors to get a better light reading such as in light meters in cameras, for example.

In reference to claim 14, claim 14 is similar in scope to claim 9 and therefore is rejected under similar rationale. Note with reference to *In re Harza*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to average the total number of measured light sensor values in order to adjust the display screen providing a best lit display obtaining the measured light sensed from multiple areas of the display screen by multiple light sensors.

In reference to claim 15, claim 15 is similar in scope to claim 10 and therefore is rejected under similar rationale. Note with reference to *In re Harza*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to access a lookup table obtaining a control signal based on the total number of measured light sensor values in order to adjust the display screen providing a best lit display obtaining the measured light sensed from multiple areas of the display screen by multiple light sensors.

In reference to claim 16, claim 16 is similar in scope to claims 6 and 11 and therefore is under similar rationale. Note with reference to *In re Harza*, it would have been obvious to one of ordinary skill in the art at the time the invention was made to compute a control signal using all measured light sensor values in order to adjust the display screen providing a best lit display

obtaining the measured light sensed from multiple areas of the display screen by multiple light sensors.

Response to Arguments

2. Applicant's arguments, see page 6, section (1), filed 7/28/2003, with respect to the disclosure have been fully considered and are persuasive. The objection of the disclosure has been withdrawn.

3. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso, can be reached at (703)-305-3885.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

aac

8/12/03

JOSEPH MANCUSO
PRIMARY EXAMINER